

# POWER AFRICA IN GHANA



## Ghana Energy Sector Overview

One of Ghana's paramount constraints to economic growth is its unreliable and inadequate supply of electric power. The country has 2,837 mega-watts (MW) of installed generation capacity, including 726 MW of generation from independent power producers (IPPs). Actual availability hardly exceeds 2500 MW on a day to day basis however. This serves a population of 27.4 million that is growing at 2.3% per year.

To address the electricity supply constraint, the Government of Ghana (GOG) added more than 600 MW of generation capacity in late 2015/early 2016, by bringing online four power projects: Karpower barge (225 MW); Ameri Power (250 MW); TICO steam turbine (110 MW); and BXC solar (20 MW). A number of private and public-sector projects are also in advanced stages of construction (about 1,180MW dependable capacity).

Ghana's power sector is undergoing slow reform as the U.S. Government and other partners focus investments on the following priorities: (1) initiating a least-cost, transparent approach to generation expansion including competitive bidding; (2) building a transparent framework for the development and management of Ghana's substantial natural gas resources; (3) financial solvency of the fuel and power supply chain, including effective allocation and pricing of legacy hydropower; (4) integrated resource and resiliency planning among the generation, transmission, and distribution sectors; (5) improved energy efficiency and demand-side management; and (6) expansion of renewable energy sources.

## Power Africa Support

Power Africa supports the GOG's generation goals with technical assistance and capacity building focused on financial management, policy reform, gas and power project securitization, and tariffs; by facilitating cross-border regional trade; and by supporting and mobilizing financing for new generation projects. Currently, Power Africa is supporting 6 priority transactions that will add over 2000 MW to Ghana's grid over the next 3-4 years.

The U.S. Government is working closely with the GOG on several key power and energy initiatives including the Partnership for Growth and the second Compact issued by the Millennium Challenge Corporation (MCC). In August 2014, MCC, a critical part of the U.S Government's inter-agency Power Africa team, and the GOG signed a \$498.2 million second compact that focuses strictly on power. The Compact's keystone project aims to improve the creditworthiness of the Electricity Company of Ghana (ECG) and the management of the Northern Electricity Distribution Company, the nation's off-takers and distributors of electric power, by supporting the transformation of their management and operation to private sector principals.

In the generation sector, Power Africa technical assistance to Ghana helped bring the CenPower/Kpone (348 MW) IPP transaction to financial close. Currently, Power Africa is supporting GOG in closing priority gas transactions such as Bridge power (400 MW), Ghana 1000 (375+375 MW), Amandi (192 MW), Globaleq (450 MW) and Jacobsen (400 MW), as well as a number of renewable energy projects.

### Ghana Electricity Profile



74%  
Access to  
electricity

52%  
Rural access  
to electricity

2,837MW  
Current installed  
generation capacity

Power Africa has been particularly successful in expanding Ghana's nascent gas sector. The Initiative facilitated the development of the Jubilee Field, Ghana's first offshore natural gas field. Jubilee began commercial operations in May 2015, producing 120 million cubic feet of gas per day. Power Africa also supported the GOG and the World Bank to enable partial risk guarantee and investment lending to develop the Sankofa field, which will produce more than 180 million cubic feet of gas per day and add more than 1,000 MW to Ghana's grid. In addition, it is working with the GOG to make the gas sector more efficient and effective, supporting the implementation of a long-term Gas Master Plan, the development of gas transmission infrastructure, the production and processing of domestic natural gas, and the importation of liquefied natural gas (LNG) as a supplementary fuel for Ghana's thermal generation plants.

Power Africa also facilitates off-grid solutions in Ghana, supporting the GOG's goal of increasing the share of generation from renewables to 10 percent by 2020. Power Africa has facilitated renewable energy projects by developing a framework for off-grid solutions; by building the capacity of the Ghana's Energy Commission in appliance standards, labeling, and testing; and by mobilizing financing for local renewable energy enterprises.

Highlighted Transactions						
Name	Megawatts	Type of Transaction	Value (USD Million)	Timeline	Power Africa Support	GOG Actions
CenPower Kpone	348 MW	CCGT (Gas/Liquids)	\$900 million	<ul style="list-style-type: none"> <li>Reached financial close, Q4 2014</li> <li>Construction, started mid-2015</li> </ul>	<ul style="list-style-type: none"> <li>Review of loan documents</li> <li>Assistance with lender requests</li> <li>PPA negotiation</li> <li>Due diligence on Cenpower's financial models, and reports/recommendations for the Electricity Company of Ghana/Ministry of Finance and Economic Planning</li> </ul>	<ul style="list-style-type: none"> <li>Approved Government Consent and Support Agreement.</li> </ul>

## About Power Africa

Power Africa is a U.S. Government-led initiative launched by President Obama in 2013. Power Africa's goals are to increase electricity access in sub-Saharan Africa by adding more than 30,000 megawatts of cleaner, more efficient electricity generation capacity and 60 million new home and business connections.

Power Africa works with African governments and private sector partners to remove barriers that impede sustainable energy development in sub-Saharan Africa and to unlock the substantial wind, solar, hydropower, natural gas, biomass, and geothermal resources on the continent.

## Mobilizing Partnerships & Investments

Power Africa draws on the combined expertise and abilities of 12 U.S. Government agencies, the World Bank Group, the African Development Bank, the Government of Sweden, the Government of Norway, the Government of Canada, the UK Department for International Development, the International Renewable Energy Agency, African governments, and private sector partners. Power Africa's "Toolbox" approach offers a range of

resources to advance key projects on the electricity grid and, through the Beyond the Grid sub-initiative, in places where the national grid doesn't reach.

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